



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2015-3982; Directorate Identifier 2015-NM-098-AD]

RIN 2120-AA64

Airworthiness Directives; The Boeing Company Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: We propose to adopt a new airworthiness directive (AD) for certain The Boeing Company Model 717-200 airplanes. This proposed AD was prompted by multiple reports of the vertical stabilizer leading edge showing signs of fastener distress. This proposed AD would require a detailed inspection for any distress of the vertical stabilizer leading edge skin, and related investigative and corrective actions, if necessary. This proposed AD would also require, for certain airplanes, repetitive detailed inspections of the spar cap for any loose and missing fasteners, repetitive high frequency eddy current (HFEC) and radiographic testing (RT) inspections of the spar cap for any crack, and related investigative and corrective actions, if necessary. We are proposing this AD to detect and correct any crack in the vertical stabilizer leading edge and front spar cap, which may result in the structure becoming unable to support limit load, and may lead to the loss of the vertical stabilizer.

DATES: We must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to <http://www.regulations.gov>. Follow the instructions for submitting comments.
- Fax: 202-493-2251.
- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.
- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this proposed AD, contact Boeing Commercial Airplanes, Attention: Data & Services Management, 3855 Lakewood Boulevard, MC D800-0019, Long Beach, CA 90846-0001; telephone: 206-544-5000, extension 2; fax: 206-766-5683; Internet <https://www.myboeingfleet.com>. You may view this referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221. It is also available on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2015-3982.

Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2015-3982; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this proposed AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Office (phone: 800-647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: Eric Schrieber, Aerospace Engineer, Airframe Branch, ANM-120L, FAA, Los Angeles Aircraft Certification Office (ACO),

3960 Paramount Boulevard, Lakewood, CA 90712-4137; phone: 562-627-5348;
fax: 562-627-5210; email: Eric.Schrieber@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

We invite you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under the ADDRESSES section. Include "Docket No. FAA-2015-3982; Directorate Identifier 2015-NM-098-AD" at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this proposed AD. We will consider all comments received by the closing date and may amend this proposed AD because of those comments.

We will post all comments we receive, without change, to <http://www.regulations.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this proposed AD.

Discussion

We have received reports of ten cases of the vertical stabilizer leading edge on Model 717 airplanes showing signs of fastener distress at the splice station Zfs=52.267. The affected Model 717 airplanes had accrued 22,594 through 40,985 flight hours and 15,352 through 34,766 landing cycles. Similar reports have been found on Model MD-80 and MD-90 airplanes. One Model MD-90 operator reported finding elongated fastener holes at the leading edge of the vertical stabilizer at station Zfs=52.267. The affected Model MD-90 airplane had accrued 15,555 flight-hours and 14,310 landing cycles. Two Model MD-80 operators reported finding a cracked vertical stabilizer skin at station Zfs=52.267; subsequent inspections revealed a severed front spar cap and a cracked front spar web. The affected Model MD-80 airplanes had accrued between 39,749 through

56,212 flight-hours and 32,176 through 44,001 landing cycles when the crack/anomalies were found. Missing fasteners or evidence of elongated fastener holes may be considered an indication that there are undetected cracks in the underlying vertical stabilizer structure. Boeing investigation determined that high loading occurrences, such as, but not limited to, in-flight turbulence can adversely impact the fasteners and loading at the leading edge of the vertical stabilizer.

This condition, if not corrected, could result in the structure unable to support limit load, and may lead to the loss of the vertical stabilizer.

Other Relevant Rulemaking

On May 31, 2011, we issued AD 2011-12-12, Amendment 39-16719 (76 FR 35342, June 17, 2011), for certain The Boeing Company Model MD-90-30 airplanes. That AD requires a detailed inspection to detect distress and existing repairs to the leading edge structure of the vertical stabilizer at the splice at station Zfs=52.267; repetitive inspections for cracking in the front spar cap forward flanges of the vertical stabilizer, and either the aft flanges or side skins; repetitive inspections for loose and missing fasteners; and related investigative and corrective actions if necessary. We issued that AD to detect and correct such cracking damage, which could result in the structure being unable to support limit load, and could lead to the loss of the vertical stabilizer.

On July 1, 2011, we issued AD 2011-15-01, Amendment 39-16748 (76 FR 41651, July 15, 2011), for certain The Boeing Company Model DC-9-81 (MD-81), DC-9-82 (MD-82), DC-9-83 (MD-83), DC-9-87 (MD-87), and MD-88 airplanes. That AD requires a detailed inspection to detect distress and existing repairs to the leading edge structure of the vertical stabilizer at the splice at station Zfs=52.267; repetitive inspections for cracking in the front spar cap forward flanges of the vertical stabilizer, and either the aft flanges or side skins; repetitive inspections for loose and missing fasteners; and related investigative and corrective actions if necessary. We issued that AD to detect and correct

such cracking damage, which could result in the structure being unable to support limit load, and could lead to the loss of the vertical stabilizer.

Related Service Information under 1 CFR part 51

We reviewed Boeing Alert Service Bulletin 717-55A0012, dated June 12, 2015. The service information describes procedures for a detailed inspection for any distress of the vertical stabilizer leading edge skin, a detailed inspection for any loose and missing fasteners of the spar cap, HFEC and RT inspections of the spar cap for any crack, and related investigative and corrective actions. This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section of this NPRM.

FAA's Determination

We are proposing this AD because we evaluated all the relevant information and determined the unsafe condition described previously is likely to exist or develop in other products of the same type design.

Proposed AD Requirements

This proposed AD would require accomplishing the actions specified in the service information described previously, except as discussed under "Differences Between this Proposed AD and the Service Information."

The phrase "related investigative actions" is used in this proposed AD. "Related investigative actions" are follow-on actions that (1) are related to the primary action, and (2) further investigate the nature of any condition found. Related investigative actions in an AD could include, for example, inspections.

The phrase "corrective actions" is used in this proposed AD. "Corrective actions" are actions that correct or address any condition found. Corrective actions in an AD could include, for example, repairs.

Differences Between this Proposed AD and the Service Information

The service bulletin specifies to contact the manufacturer for instructions on how to repair certain conditions, but this proposed AD would require repairing those conditions in one of the following ways:

- In accordance with a method that we approve; or
- Using data that meet the certification basis of the airplane, and that have been approved by the Boeing Commercial Airplanes Organization Designation Authorization (ODA) whom we have authorized to make those findings.

Costs of Compliance

We estimate that this proposed AD affects 106 airplanes of U.S. registry.

We estimate the following costs to comply with this proposed AD:

Estimated costs

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Inspections for distress	11 work-hours X \$85 per hour = \$935 per inspection cycle	\$0	\$935 per inspection cycle	\$99,110 per inspection cycle
Repetitive inspections for cracking and loose and missing fasteners	7 work-hours X \$85 per hour = \$595 per inspection cycle	\$0	\$595 per inspection cycle	\$63,070 per inspection cycle

We have received no definitive data that would enable us to provide cost estimates for the on-condition actions specified in this proposed AD.

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator.

Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: "General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

We determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

- (1) Is not a "significant regulatory action" under Executive Order 12866,
- (2) Is not a "significant rule" under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979),
- (3) Will not affect intrastate aviation in Alaska, and
- (4) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

The Boeing Company: Docket No. FAA-2015-3982; Directorate Identifier 2015-NM-098-AD.

(a) Comments Due Date

We must receive comments by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE Federal Register].

(b) Affected ADs

None.

(c) Applicability

This AD applies to The Boeing Company Model 717-200 airplanes, certificated in any category, as specified in Boeing Alert Service Bulletin 717-55A0012, dated June 12, 2015.

(d) Subject

Air Transport Association (ATA) of America Code 55, Stabilizers.

(e) Unsafe Condition

This AD was prompted by multiple reports of the vertical stabilizer leading edge showing signs of fastener distress. We are issuing this AD to detect and correct any crack

in the vertical stabilizer leading edge and front spar cap, which may result in the structure becoming unable to support limit load, and may lead to the loss of the vertical stabilizer.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Initial Inspection

Except as required by paragraph (i)(1) of this AD, at the applicable time specified in paragraph 1.E., “Compliance,” of Boeing Alert Service Bulletin 717-55A0012, dated June 12, 2015: Do a detailed inspection for any distress of the vertical stabilizer leading edge skin and do all applicable related investigative and corrective actions, in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 717-55A0012, dated June 12, 2015, except as required by paragraph (i)(2) of this AD. Do all applicable related investigative and corrective actions before further flight.

(h) Repetitive Inspections

For all airplanes on which no cracking was found during any related investigative action required by paragraph (g) of this AD: At the applicable time specified in paragraph 1.E., “Compliance,” of Boeing Alert Service Bulletin 717-55A0012, dated June 12, 2015: Do the actions specified in paragraphs (h)(1) and (h)(2) of this AD and do all applicable related investigative and corrective actions, in accordance with the Accomplishment Instructions of Boeing Alert Service Bulletin 717-55A0012, dated June 12, 2015, except as required by paragraph (i)(2) of this AD. Do all applicable related investigative and corrective actions before further flight. Repeat the applicable inspection thereafter at the intervals specified in paragraph 1.E., “Compliance,” of Boeing Alert Service Bulletin 717-55A0012, dated June 12, 2015.

(1) Do detailed inspections for any for any loose and missing fasteners of the vertical stabilizer leading edge as specified in “Part 4” of Boeing Alert Service Bulletin 717-55A0012, dated June 12, 2015.

(2) Do high frequency eddy current (HFEC) and radiographic testing (RT) inspections for any crack of the vertical stabilizer spar cap as specified in "Part 2" of Boeing Alert Service Bulletin 717-55A0012, dated June 12, 2015; or do HFEC inspections for any crack of the vertical stabilizer spar cap as specified in "Part 3" of Boeing Alert Service Bulletin 717-55A0012, dated June 12, 2015.

(i) Exceptions to the Service Information

(1) Where Boeing Alert Service Bulletin 717-55A0012, dated June 12, 2015 specifies a compliance time "after the original issue date of this service bulletin," this AD requires compliance within the specified compliance time after the effective date of this AD.

(2) If any crack is found during any inspection required by this AD, and Boeing Alert Service Bulletin 717-55A0012, dated June 12, 2015, specifies to contact Boeing for appropriate action: Before further flight, repair using a method approved in accordance with the procedures specified in paragraph (j) of this AD.

(j) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Los Angeles Aircraft Certification Office (ACO), FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the ACO, send it to the attention of the person identified in paragraph (k)(1) of this AD. Information may be emailed to: 9-ANM-LAACO-AMOC-Requests@faa.gov.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(3) An AMOC that provides an acceptable level of safety may be used for any repair required by this AD if it is approved by the Boeing Commercial Airplanes Organization Designation Authorization (ODA) that has been authorized by the Manager, Los Angeles ACO, to make those findings. For a repair method to be approved the repair must meet the certification basis of the airplane and the approval must specifically refer to this AD.

(k) Related Information

(1) For more information about this AD, contact Eric Schrieber, Aerospace Engineer, Airframe Branch, ANM-120L, FAA, Los Angeles Aircraft Certification Office (ACO), 3960 Paramount Boulevard, Lakewood, CA 90712-4137; phone: 562-627-5348; fax: 562-627-5210; email: Eric.Schrieber@faa.gov.

(2) For service information identified in this AD, contact Boeing Commercial Airplanes, Attention: Data & Services Management, 3855 Lakewood Boulevard, MC D800-0019, Long Beach, CA 90846-0001; telephone: 206-544-5000, extension 2; fax: 206-766-5683; Internet <https://www.myboeingfleet.com>. You may view this referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221.

Issued in Renton, Washington, on September 27, 2015.

Michael Kaszycki,
Acting Manager,
Transport Airplane Directorate,
Aircraft Certification Service.

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